

REMARKS/ARGUMENTS

Claims 1, 4, 7, 9-11, 13 and 16-21 are pending in the application of which claims 1, 11 and 17 are in independent format. Claims 1, 4, 9, 10, 11, 13, 16, 17, 18, 19, 20 and 21 are amended in this response. No new claims have been added.

Information Disclosure Statement

The Information Disclosure Statement of March 20, 2005 was filed by an attorney who is not counsel of record for this application. Applicant's counsel left a message for the filing attorney informing him of the mistake on or about November 13, 2007. This Information Disclosure Statement does not relate to the instant application and should be removed from the record of prosecution.

Claim Objections

Claims 13 and 16 have been objected to by the Examiner because of informalities in both claims. Claims 13 and 16 have been amended to correct the informalities and remove the basis for the objections.

Rejection Under 35 U.S.C. 103

The Examiner rejected claims 1, 4, 7, 9-11, 13 and 16-21 under 35 U.S.C. 103 as being allegedly obvious over *Sutton* (U.S. Patent No. 4,718,827) (hereinafter "the *Sutton* reference") in view of *Park* (U.S. Patent No. 6,620,050) (hereinafter "the *Park* reference"). The rejection states that the *Sutton* reference fails to teach the alignment pins of the presently claimed application. Additionally, the rejection emphasizes the factual inquires of the *Graham* decision.¹

¹ *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicant's disclosure." M.P.E.P. § 2143. The recent *KSR* decision has not altered these requirements.²

The references relied upon by the Examiner to establish obviousness do not disclose or suggest the spring pins extending within the open sided recesses of the cap and the casing and within the open sided, spaced channel of the port plate.

I. The *KSR* Decision and the Law of Obviousness

The Supreme Court in the *KSR* decision reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*³, but stated that the Federal Circuit had erred by applying the teaching-suggestion motivation test in an overly rigid and formalistic way.⁴ In *KSR*, the Supreme Court particularly emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," and discussed factors in which a patent might be determined to be obvious.⁵ When considering obviousness of a combination of known elements, the operative question is "whether the improvement is more than the predictable use of prior art elements according to their established functions."⁶

II. The Basic Factual Inquiries of *Graham v. John Deere Co.*

² *KSR International Co. v. Teleflex Inc.*, 550 U.S. ___, 82 USPQ2d 1385 (2007)

³ 383 U.S. 1 (1966)

⁴ *KSR*, 550 U.S. at ___, 82 USPQ2d at 1391

⁵ *Id.* at ___, 82 USPQ2d at 1395

⁶ *Id.*

As reiterated by the Supreme Court in *KSR*, the framework for the objective analysis for determining obviousness under 35 U.S.C. 103 is stated in the *Graham* decision.⁷ Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows: (A) determining the scope and content of the prior art; (B) ascertaining the differences between the claimed invention and the prior art; and (C) resolving the level of ordinary skill in the pertinent art.⁸

The Court in *Graham* “recognized the importance of guarding against hindsight, as is evident in its discussion of the role of secondary considerations as ‘ser[ving] to guard against slipping into use of hindsight and to resist the temptation to reading into the prior art the teachings of the invention at issue’”.⁹

The question of obviousness must be resolved on the basis of these factual determinations. While each case is different and must be decided on its own facts, the *Graham* factors are the controlling inquiries in any obviousness analysis.¹⁰

III. The Examiner Has Failed To Explain Any Rationale To Support Rejections Under 35 U.S.C. 103

Once the *Graham* factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art. The Examiner must explain why the difference(s) between the prior art and the claimed invention would have been obvious to one of ordinary skill in the art. The “mere existence of differences between the prior art and an invention does not establish the invention’s non-obviousness.”¹¹ The difference between the prior art and the claimed invention may not be “so great as to render the [claim] nonobvious to one reasonably skilled in the art.”¹²

⁷ 383 U. 1 (1966)

⁸ *Id.*

⁹ *Alza Corp. v. Mylan Laboratories, Inc.*, 464 F.3d 1286 (Fed. Cir. 2006) (quoting *Graham*, at 36).

¹⁰ *KSR*, 550 U.S. at ___, 82 USPQ2d at 1391.

¹¹ *Dann v. Johnston*, 425 U.S. 219 (1976)

¹² *Id.*

The key to supporting any rejection under 35 U.S.C. 103 is the clear explanation of the reason(s) why the claimed invention would have been obvious.¹³ The Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn* stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”¹⁴

These rationales include:

“Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.”¹⁵

If the search of the prior art and the resolution of the *Graham* factual inquiries reveal that an obviousness rejection may be made using the familiar teaching-suggestion-motivation (TSM) rationale, then such a rejection using the TSM rationale can still be made.¹⁶ Although the Supreme Court in *KSR* cautioned against an overly rigid application of TSM, it also recognized that TSM was one of a number of valid rationales that could be used to determine obviousness.¹⁷ As the Federal Circuit has found, “a flexible TSM test remains the primary guarantor against a non-statutory hindsight analysis.” *Ortho-McNeil Pharmaceutical, Inc. v. Mylan Laboratories, Inc.*, ___ F.3d ___, (Docket No. 2007-1223, Fed. Cir. Decided March 31, 2008 at page 11) (citing *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007)) (“[A]s the Supreme Court suggests, a flexible approach to the TSM test prevents hindsight and focuses on evidence before the time of the invention.”). The *Ortho* court states that the “TSM test, flexibly applied, merely assures that the obviousness test proceeds on the basis of evidence – teachings, suggestions (a tellingly broad term), or

¹³ Federal Register, Vol. 72, No. 195, p. 57528 (October 10, 2007)

¹⁴ *KSR*, at ___ (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006))

¹⁵ *Id.*

¹⁶ Federal Register, Vol. 72, No. 195, p. 57528 (October 10, 2007)

¹⁷ According to the Supreme Court, establishment of the TSM approach to the question of obviousness “captured a helpful insight.” *KSR*, 550 U.S. at ___, 82 USPQ2d at 1396.

motivations (an equally broad term) that arise before the time of the invention as the statute requires.” *Id.*

To reject a claim based on the TSM rationale, the Examiner must resolve the *Graham* factual inquiries. The Examiner must then articulate the following:

(1) a finding that there was some teaching, suggestion, or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; and

(2) a finding that there was reasonable expectation of success.¹⁸

The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself.¹⁹

As noted by the Examiner, the *Sutton* reference does not teach the alignment pins of the presently claimed application. The *Park* reference does not disclose or suggest spring pins extending within the open sided recesses of the cap and the casing and within the open sided, spaced channel of the port such that expansion forces exerted by the spring against the circular sidewall linearly dissipate to and through the end cap and the port plate.

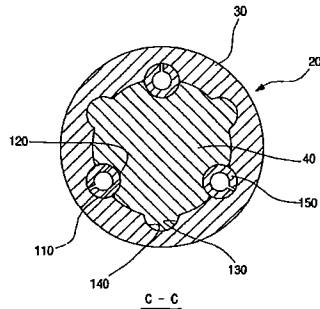
The *Park* reference teaches a shaft connection between a slip joint and a yoke joint wherein an elastic member inserts therebetween to generate an elastic force in a radial direction. (See: Column 2, lines 50-53, Abstract). The elastic member in the forms of pins 150 fits between an inner groove 110 of an outer member 10 and outer groove 120 of an inner member 40. (See: Column 3, lines 32, 3-5; lines 54-57 and Figures 5 and 6 below as contrasted with Figure 2B of the present application). The inner member 40 further has protrusions 140 engaging some of the inner grooves 110. Thus, the pins 150 are enclosed

¹⁸ Federal Register, Vol. 72, No. 195, p. 57534 (October 10, 2007)

¹⁹ *Dystar Textilfarben GmbH & Co. Deutschland Kg v. C.H. Patrick Co.*, 464 F.3d 1366, 80 USPQ2d 1641 at 1649 (Fed. Cir. 2006)

between the outer member 10 and the inner member 40. In this completely enclosed orientation, the pins 150 generate forces in the radial direction. (See: Column 2, lines 49-52).

【Fig.5】



【Fig.6】

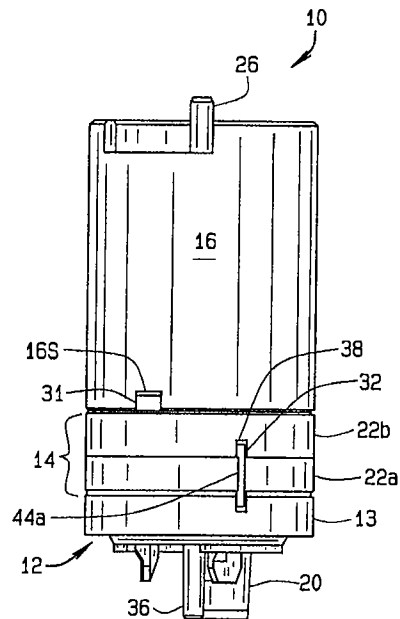
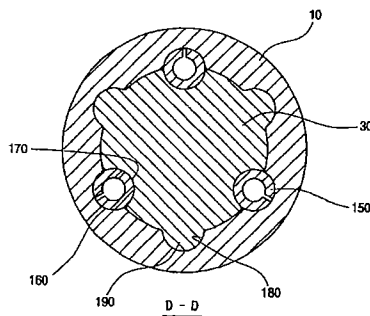


FIG. 2B

The present application teaches spring pins extending within the open sided recesses of the cap and the casing and within the open sided, spaced channel of the port such that expansion forces exerted by the spring against the circular sidewall linearly dissipate to and through the end cap and the casing. This construction helps distribute forces exerted by the pins against the sidewalls of the channels when the pump is subjected to shocks and vibrations, so to prevent the parts from cracking about the area where the channels are formed. (See: Specification page 4, lines 1-3).

Open sided channels in the outer wall of port plate have the advantage of allowing forces transmitted through the spring pins, when shocks and vibrations

occur, to dissipate through the end cap and port plate, rather than cracking radially to the outside of the port plate. (See: Specification page 7, lines 17-20). Because the channels and recesses are open sided rather than completely enclosing and encapsulating the spring pins, forces which otherwise could damage the end cap and port plates are readily distributed through these parts and not concentrated about the channels where damage could occur. (See: Specification page 8, lines 18-21).

The rejection of the claims has not provided a *prima facie* case of obviousness as the rejection has not determined the scope and contents of the *Sutton* and *Park* references and has not ascertained the differences between these references and the presently claimed application.

As noted in the Background section of the present application, vibrations and shocks applied to enclosed pins are transmitted to the portion of the component surrounding the pins, and will cause cracks to occur about the bores that enclose the pins. (See: Specification page 3, lines 4-8). The *Park* reference specifically teaches enclosing the pins to generate radial forces. Combining the enclosed pins of the *Park* reference with the pump of the *Sutton* reference teaches away from the presently claimed application thereby supporting a showing of nonobviousness. (See: M.P.E.P. 2141.02; *McGinley v. Franklin Sports Inc.*, 262 F.3d 1339, 60 USPQ2d 1001, 1010 (Fed. Cir. 2001)).

The Examiner has not explained what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination of the *Sutton* and *Park* references to achieve the present application. Since the Examiner has not provided a suggestion to combine the references, then there is no finding of a reasonable expectation of success of the combination.

The Examiner's analysis is directed to ways that the references can be combined to be read on the claimed invention as opposed to pointing to specific information in the *Sutton* and *Park* references that suggest the combination. One skilled in the art would not be motivated to seek out the outer, inner members

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and the enclosed pins of the *Park* reference and combine these pins and resulting radial deflection with the pump taught by the *Sutton* reference since vibrations applied to the enclosed pins would transmit to the outer member causing cracking thereof.

Dependent claims, by their nature, include all of the limitations of the parent independent claim and any intervening claims from which they depend. Claims 4, 7, 9-10, 13, 16 and 18-21 depend directly or indirectly from independent Claims 1, 11 and 17, and accordingly, are believed allowable, for at least the same previous reasons as independent Claims 1, 11 and 17.

For at least the foregoing reasons, Claims 1, 4, 7, 9-11, 13, 16-21 are believed to be in condition for allowance. Issuance of a Notice of Allowance with respect to the claims is thus respectfully requested. If for any reason the Examiner is unable to allow the application on the next office Action and feels that an interview would be helpful to resolve any remaining issues, the Examiner is respectfully requested to contact the undersigned attorney for the purpose of arranging such an interview.

The Commissioner is hereby authorized to charge \$230.00 for the two month extension of time fee and additional fees or credit overpayment under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account 162202. The Commissioner is hereby authorized to charge any fees or credit overpayment under 37 CFR 1.16 and 1.17 which may be required by this paper to Deposit Account 162202.

Respectfully Submitted:

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